



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

Mr. Adrian P. Chapman  
President and Chief Operating Officer  
Washington Gas Company  
6801 Industrial Road  
Springfield, Virginia 22151

OCT - 6 2016

Dear Mr. Chapman:

Pursuant to the federal polychlorinated biphenyl (PCB) regulations, 40 C.F.R. Part 761, the Environmental Protection Agency Region III (EPA) is issuing the enclosed document, entitled "APPROVAL RENEWAL FOR ALTERNATIVE CHARACTERIZATION AND ABANDONMENT PROCEDURES FOR NATURAL GAS PIPELINE" to the Washington Gas Company (WGC). This risk-based disposal approval renewal allows WGC to continue to use alternative procedures for characterization and abandonment of small diameter gas pipeline for polychlorinated biphenyls (PCBs).

A public notice of the availability of the renewal approval for review and request for comments was made available on EPA's website on July 19, 2016. EPA did not receive any comments on the renewal approval during the 30-day public comment period.

This Approval shall be effective on the date of signature of the Approval and shall remain effective for 10 years. However, the EPA may suspend or revoke this Approval should WGC fail to comply with the Approval conditions. Violation of the Approval conditions and/or the applicable PCB regulations at 40 C.F.R. Part 761 could result in civil and/or criminal penalties. Furthermore, this Approval renewal does not relieve WGC of the responsibility to comply with all other federal, state, and local regulations and ordinances that may apply to the activities addressed in this Approval.

Your staff may contact Kelly Bunker, PCB Coordinator, at (215) 814-2177 or [bunker.kelly@epa.gov](mailto:bunker.kelly@epa.gov), if there are any questions pertaining to this matter.

Sincerely,

A handwritten signature in black ink, which appears to read "John A. Armstead", is written over a circular stamp or seal.

John A. Armstead, Director  
Land and Chemicals Division

Enclosure

Cc: Ryan Miller (Washington Gas Co.) w/ enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

1650 Arch Street

Philadelphia, Pennsylvania 19103-2029

IN THE MATTER OF: ) RENEWAL OF APPROVAL FOR  
WASHINGTON GAS ) ALTERNATIVE  
WASHINGTON, DC ) CHARACTERIZATION AND  
 ) ABANDONMENT PROCEDURES  
 ) FOR NATURAL GAS PIPELINE

AUTHORITY

This Approval Renewal for alternative characterization and abandonment procedures for natural gas pipeline systems containing polychlorinated biphenyls (PCBs) is issued pursuant to Section 6(e) of the Toxic Substances Control Act (TSCA), 15 USC § 2605(e), and 40 C.F.R. Part 761 "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions" ("PCB Regulation").

TABLE OF CONTENTS

	<u>PAGE</u>
Authority .....	1
Background .....	2
Applicable Regulations .....	3
Definitions .....	3
Findings .....	4
Approval .....	5
Conditions of Approval .....	5
A. Effect of Approval .....	5
B. Severability .....	5
C. Approval Compliance .....	5
D. Approval Revocation/Suspension .....	6
E. Approval Expiration and Continuation .....	6
F. Approval Renewal .....	6
G. Approval Modification .....	7
H. Inspections .....	7
I. Pipeline Characterization .....	7
J. Analysis .....	8

K. Application of Sampling Results .....	8
L. Quality Assurance .....	9
M. Disposal .....	9
N. Recordkeeping and Reporting.....	9
Appendix A - WGC January 30, 2006 application.....	11

## BACKGROUND

Washington Gas (WGC) owns and operates a natural gas distribution system in the Washington, D.C. and Springfield, Virginia metropolitan areas. From historical sampling of WGC's pipeline system, all gate stations (interconnects with natural gas suppliers) indicated concentrations of PCBs that were below 50 parts per million (ppm) by 1993. It was determined that there were still several drip points and valves in the gas distribution system that may contain condensate with PCB concentrations greater than or equal to 50 ppm. In 1999, WGC conducted an updated study of all major gate stations which found the presence of PCBs in only one of the gate stations and at a level below 50 ppm. Therefore, it was assumed by WGC that any source of PCB contamination originated from PCB based oils and lubricants from other suppliers and occur in the pipelines in condensate from high pressure operations.

In June 1998, the Environmental Protection Agency (EPA) amended the federal PCB regulations at 40 C.F.R. Part 761, to conditionally authorize the use of PCBs in natural gas pipeline systems. The Agency also established procedures for testing, abandoning and disposing of natural gas pipelines contaminated by PCBs. Sections 761.60(b)(5)(iii) and 761.250 describe methods by which to sample pipe for characterization purposes prior to abandonment in place. The natural gas pipeline provisions in the PCB regulations were drafted with interstate natural gas transmission systems in mind rather than local natural gas distribution systems. The interstate transmission pipelines are typically larger diameter pipes in long, relatively straight runs with minimal branching. By contrast local gas distribution systems consist mainly of small diameter (two (2) inch to six (6) inch) supply lines with multiple branches that typically follow the road and street network and smaller diameter (usually less than one inch) service lines that run from the street or right-of-way to the meter at the house or building. Sampling small diameter pipe (e.g., less than six (6) inches in diameter) using the methods described in 40 C.F.R. Sections 761.60(b)(5)(iii) and 761.250 is difficult. Consequently, on January 30, 2006, WGC submitted an application to EPA Region III for an alternate sampling characterization and abandonment procedure for pipelines with a diameter of less than six (6) inches. This alternate sampling characterization and abandonment procedure is similar to the procedure in the August 15, 2000 Approval issued to Atlanta Gas Light Company (AGLC) by EPA Region IV. On August 18, 2006, EPA Region III approved WGC's alternate characterization and abandonment procedure for natural gas pipelines. On July 6, 2016 WGC requested the renewal of the Approval. The Approval expired on August 18, 2016.

EPA is renewing WGC's Approval with the following minor modifications and additional conditions: 1) the requirement to submit a copy of each pipeline characterization project plan to EPA Region III is eliminated and in its place WGC will be required to maintain copies of each pipeline characterization project plan at a designated location for 5 years after the date of abandonment; 2) WGC must notify EPA Region III at least 30 calendar days prior to beginning each pipeline characterization project conducted under the provisions of the approval, this notification will include the location of the project, size of abandonment project – either large or small; the number and type(s) of samples to be used and the estimated start and completion date; 3) WGC must notify EPA Region III of the sampling results for each pipeline characterization project no later than 30 calendar days after receipt of sample results; and 4) WGC must notify EPA Region III of the method of abandonment used for each pipeline characterization project no later than 30 calendar days prior to implementation of abandonment.

### APPLICABLE REGULATIONS

Requirements for abandonment (in place disposal) of natural gas pipeline systems containing PCBs are set forth in 40 C.F.R. §761.60(b)(5)(i). Paragraph D of §761.60(b)(5)(i) provides a mechanism for Agency approval of alternative methods of abandonment under §761.61(c) *risk-based disposal approval*, which specifies that the basis for approval is a finding of no unreasonable risk to health or the environment.

### DEFINITIONS

All the terms and abbreviations used in this Approval shall have the meanings as defined in 40 C.F.R. §761.3 and §761.240 unless the context clearly indicates otherwise or unless the term is defined below for the purposes of this Approval.

“Abandonment” means removing gas pipeline from the active distribution system by cutting and capping the ends of the obsolete pipeline and leaving it in-place, usually in the ground.

“Cut and cap” means the act of cutting pipe by mechanical means such as a spark less wheel cutter, and capping the ends. Usually performed during pipeline abandonments and/or renewals for the purpose of segregating pipelines.

“Drip” means a small tank attached to a line for purposes of trapping and removing liquids.

“Feed” means the gas supply line to a project area.

“Major modification” means any change to the sampling methods to verify decontamination specified herein or any other changes which affect overall performance or environmental impact.

“Minor modification” means administrative and informational changes, correction to

typographical errors, changes to conform with agency guidance or regulations, or any other change which does not affect overall performance or environmental impact.

“Organic liquid” means that portion or phase of pipeline condensate composed of hydrocarbons.

“Project or project area” means a portion of the approximately 10,537 miles of pipe in WGC’s natural gas distribution system included in WGC’s abandonment/removal program in which the natural gas supply lines and service lines are to be abandoned in place or removed.

“Service” means small diameter pipe (nominally one (1) inch or less) that runs from the street supply line to the meter at a house or building.

“Supply line” means gas pipe in a street or right-of-way that is part of the distribution system that delivers gas from pumping stations or other distribution points to one or more service connections.

## FINDINGS

1. WGC has developed an alternative wipe sampling method to determine PCB concentration on the internal surface of small diameter gas pipe similar to the method developed by AGLC and approved by EPA on August 15, 2000. The standard wipe test developed by EPA may not be practical in pipe having a nominal inside diameter of less than six (6) inches. Test data submitted by AGLC indicates that its alternate wipe test averaged slightly higher recovery rates for PCB spiked surfaces when compared to the standard wipe test. EPA Region IV has agreed that AGLC’s procedure is acceptable for testing small diameter pipe having a nominal inside diameter of less than or equal to four (4) inches on an interim basis when used in a pass/fail mode. Based on EPA Region IV’s approval of AGLC plan, as well as EPA Region III’s independent review of WGC’s plan, EPA Region III has concluded that WGC’s alternate sampling plan is acceptable for testing small pipes with a diameter of less than six (6) inches for PCBs.

2. At a minimum, 40 C.F.R. §761.250(b) requires PCB sampling at all ends of pipeline sections being abandoned. EPA finds that WGC’s proposed sampling frequency of one sample per 5,000 feet of pipeline is acceptable for large abandonment projects (e.g., greater than three miles of pipeline) but is requiring a sampling frequency of one sample per 2,500 feet of pipeline for projects with less than three miles of pipeline.

3. EPA has determined that WGC’s alternative procedures for natural gas pipeline wipe sampling and distribution system characterization for PCBs, when used in conjunction with standard abandonment procedures for PCB contaminated pipeline and in accordance with the Approval conditions established herein, will not pose an unreasonable risk of injury to health or the environment.

## APPROVAL

EPA approves WGC's January 30, 2006 application for the alternate characterization and abandonment procedures for natural gas pipelines and hereby grants approval to the WGC to characterize pipeline within its natural gas distribution system slated for abandonment for PCB contamination using the procedures in the application and as set forth in the approval conditions stated herein.

This Approval shall become effective on the date of signature and shall expire ten (10) years from the date of signature, unless revoked, suspended, or terminated in accordance with the Approval conditions stated herein. This Approval does not relieve WGC from compliance with applicable federal, state and local regulatory requirements. This Approval does not relieve WGC from compliance with the federal PCB regulations at 40 C.F.R. Part 761, and any amendments or revisions thereto, except those provisions at 40 C.F.R. §761.60(b)(5)(i) and (iii) regarding natural gas pipeline abandonment and characterization, to the extent allowed by this Approval.

## APPROVAL CONDITIONS

### A. Effect of Approval

1. Issuance of this Approval does not convey property rights of any part or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights or any infringement of state or local laws or regulations.
2. Compliance with these Approval conditions does not establish a defense to any other law that provides protection from any unreasonable risk to public health and the environment, including the federal PCB regulations at 40 C.F.R. Part 761.
3. This Approval does not relieve WGC from compliance with all applicable federal, state and local regulatory requirements, including the federal PCB regulations at 40 C.F.R. Part 761.

### B. Severability

The provisions of this Approval are severable, and if any provision of this Approval or if the application of any provision of this Approval is held invalid, the remainder of this Approval shall not be affected thereby.

### C. Approval Compliance

1. WGC must comply with and operate in accordance with the provisions of the federal

PCB regulations at 40 C.F.R. Part 761 and with the Approval conditions stated herein.

2. These Approval conditions are based on the facts, representations, and certifications made by WGC in its application, dated January 30, 2006, and any subsequent written communication with the Agency. In the event that the conditions of this Approval are found to be inconsistent with the provisions of the WGC application, either EPA or WGC, as appropriate, must promptly notify the other party and both parties must subsequently work together to reconcile the inconsistency. Prior to reconciling any inconsistency, WGC must comply with the conditions of this Approval unless EPA and WGC mutually agree in writing otherwise.

D. Approval Suspension/Revocation

1. Departure from these Approval conditions, the approved application materials or approved modification(s) to this Approval, or the federal PCB regulations without the prior written approval of EPA may result in the immediate suspension of this Approval and/or the commencement of proceedings to revoke this Approval and/or appropriate enforcement action under any or all applicable statutes and regulations.

2. This Approval may be suspended or revoked at any time by EPA when it has reason to believe that WGC's pipeline abandonment activities present an unreasonable risk to health or the environment.

E. Approval Expiration and Continuation

1. This Approval shall expire ten (10) years from the date of signature of this Approval.

2. This Approval and its conditions herein will remain in effect beyond the Approval expiration date if WGC has submitted a timely, complete and adequate notice of intent to continue the Approval and, through no fault of WGC, EPA has not issued an Approval renewal.

F. Approval Renewal

1. To continue the alternate characterization and abandonment procedures granted by this Approval after the expiration date of this Approval, WGC must notify EPA by written notice of intention to continue the Approval at least 180 days, but not more than 270 days prior to the expiration date of this Approval.

2. EPA may require WGC to submit additional information in connection with the renewal of this Approval. EPA shall review the submitted information and determine if this Approval is to be renewed.

G. Approval Modification

1. WGC must submit an application and receive written EPA approval for any modification to the WGC application or to this Approval. WGC must not implement any such modifications until it receives written EPA approval.
2. A major modification to this Approval or the WGC application shall be made only upon the written approval of the EPA Regional Administrator or his/her designee.
3. A minor modification to this Approval or the WGC application shall be made upon the written concurrence of the EPA Region III Toxics Program Branch Chief.
4. Any modification implemented prior to receiving written EPA approval is a violation of this Approval.

H. Inspections

1. WGC shall allow EPA authorized representative(s) to, at reasonable times to:
  - (a) Inspect any records, data, etc., generated in support of work carried out under the terms of this Approval or the federal PCB regulations;
  - (b) Take sample(s) for the purpose of assessing compliance with this Approval or the federal PCB regulations; and
  - (c) Inspect WGC's activities relative to this Approval or the Federal PCB regulations.
2. A denial of access or refusal to allow EPA authorized representative(s) to conduct an inspection is a violation of this Approval unless said denial is adjudicated by a court of competent jurisdiction to be within WGC's Constitutional rights.

I. Pipeline Characterization

1. The pipeline to be abandoned or removed in each project area shall be reviewed by WGC's respective service centers, responsible for the individual projects, in conjunction with the technical or engineering department to identify low points for inspection and determine the number and location of samples to be collected.
2. For each pipeline abandonment or removal project area, WGC shall characterize the project area pipeline for PCB contamination by analyzing organic liquids collected at any existing condensate collection points (drips), representative low points to be selected by WGC, and cut ends. If no organic liquids are present, WGC shall drain free-flowing liquids and collect wipe samples at selected cut ends.



3. WGC shall follow the wipe sampling procedures at 40 C.F.R. 761 Subpart M for characterization of pipeline having a nominal inside diameter of greater than or equal to 6 inches. WGC shall use the approved alternative small diameter wipe sampling procedure, which is incorporated as part of this Approval and is found in Appendix A of this Approval, to characterize pipeline having a nominal inside diameter of less than 6 inches.

4. Low point inspections - The pipeline in each project area will be characterized by inspecting representative low points at a frequency of one low point per 5,000 feet of pipe or part thereof.

5. Cut end sampling - WGC shall sample the most upstream cut end(s) of the feed(s) or supply line(s) to a project area. If a project area contains less than 2,500 feet of pipe for abandonment, the feed cut end sample(s) will be used to characterize the pipe within the project area. Additional samples will be collected from selected cut ends and representative low points previously inspected for liquids at the following frequencies:

a. For project areas containing less than three (3) miles of pipeline slated for abandonment, at least one sample shall be collected per 2,500 feet or part thereof.

b. For project areas containing greater than or equal to three (3) miles of pipeline slated for abandonment, at least one sample shall be collected per 5,000 feet or part thereof.

6. Pipeline characterization samples shall be collected from various, evenly distributed locations across the project area.

J. Analysis

The PCB levels determined for liquid and wipe samples shall be reported as total PCBs calculated by comparison to the relevant Aroclor standards -- i.e., Aroclor 1242, 1248, 1254 and 1260, etc. Samples shall be analyzed in accordance with the methodologies specified in 40 C.F.R. §761.60(g) or §761.253, as applicable.

K. Application of Sampling Results

1. The results of PCB testing on gas pipeline characterization samples shall be used to determine the regulatory classification of pipeline within the project area. Pipeline shall be classified as PCB pipe if testing a liquid sample or a wipe sample yields the following results:

a. The PCB concentration of a liquid sample is  $\geq 50$  ppm;

- b. The PCB concentration for a standard wipe sample is reported at > ten (10) micrograms per 100 square centimeters ( $\mu\text{g}/100\text{ cm}^2$ ); or
  - c. The PCB concentration for a sample collected using WGC's alternative wipe test is reported as any value above the laboratory detection limit.
- 2. The resulting pipeline classification shall apply to the pipeline at a sample point and all sections of pipeline downstream of a sample point unless and until a second sample is collected downstream of the first sample that changes the pipeline classification.
  - 3. Pipeline sections containing PCBs below the levels specified in Condition L.1 may be abandoned in accordance with WGC's best management practices.
  - 4. Pipelines sections classified as PCB pipe shall be abandoned in accordance with the requirements of 40 C.F.R. §761.60(b)(5)(i).

L. Quality Assurance

WGC has developed a Quality Assurance Plan (QAP) for pipeline characterization in its January 30, 2006 application to ensure the PCB data collected is suitable for its intended use. WGC shall follow the procedures outlined in the QAP in conducting all pipeline characterization work under the terms of this Approval.

M. Disposal

- 1. Any liquids containing PCBs  $\geq 50$  ppm removed, spilled, or otherwise released from a natural gas pipeline system shall be disposed of in accordance with 40 C.F.R. §761.61(a)(5)(iv).
- 2. Material contaminated by spills or other releases of PCBs  $\geq 50$  ppm from a natural gas pipeline system shall be disposed of in accordance with 40 C.F.R. §761.61 or §761.79, as applicable.
- 3. Non-liquid sampling equipment, cleaning materials and personal protective equipment (PPE) waste at any concentration, including non-porous surfaces, and other non-liquid materials such as rags, gloves, booties, other disposable PPE and similar materials resulting from pipeline characterization work or cleanup activities shall be disposed of in accordance with 40 C.F.R. §761.61(a)(5)(v).

N. Recordkeeping and Reporting

- 1. WGC shall maintain a copy of each pipeline characterization project plan conducted under the provisions of this Approval. The plan shall be maintained at the WGC office located at 6801 Industrial Road, Springfield, VA 22151, for at least five (5) years after

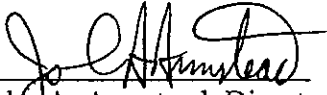
the date of abandonment for each project plan. The project plans shall be made available for review at the request of an EPA authorized representative. Each project plan shall include a color-coded map of the project area depicting the layout of pipeline to be abandoned or removed, the layout of any replacement pipe, cut and cap locations, PCB sampling locations, number and sampling type(s) used, PCB sampling results and dates of abandonment.

2. WGC shall notify the EPA Region III Toxics Program Branch Chief (Mail Code 3LC61) at least thirty (30) calendar days prior to beginning each pipeline characterization project conducted under the provisions of this Approval. The notification shall include the location of the project, the number and type(s) of samples to be used and the estimated start and completion date.

3. WGC shall notify the EPA Region III Toxics Program Branch Chief (Mail Code 3LC61) of the sampling results for each pipeline characterization project conducted under the provisions of this Approval no later than thirty (30) calendar days after receipt of sample results.

4. WGC shall notify EPA Region III Toxics Program Branch Chief (Mail Code 3LC61) of the method of abandonment used for each pipeline characterization project conducted under the provisions of this Approval no later than thirty (30) calendar days prior to implementation of abandonment.

10.6.16  
Date

  
John A. Armstead, Director  
Land and Chemicals Division